TO: Delaware Department of Natural Resources and Environmental Control
FROM: Travis Madsen, Senior Program Manger, Environment America
RE: Proposed Changes to the Regional Greenhouse Gas Initiative – 7 DE Admin. Code 1147 - CO_2 Budget Trading Program
DATE: September 25, 2013

Thank you for the opportunity to comment on these proposed changes to the Regional Greenhouse Gas Initiative (RGGI). On behalf of Environment America's thousands of local members and supporters, we commend Delaware for moving to improve this critical program to ensure that it will yield a significant reduction in carbon pollution from power plants.

As you know, this program is a key element of Delaware's strategy to reduce climate-altering pollution while shifting to cleaner and more efficient, renewable energy sources. It is also a strong example of a successful approach to clean up power plants that can guide other states, the nation and the world in tackling global warming.

We strongly support the adoption of this rule, which would cap emissions from power plants in the RGGI region at 91 million metric tons in 2014 and then lower emissions by 2.5 percent per year. We look forward to working with Delaware and the other Northeast states to ensure that it succeeds.

In this testimony, we will provide brief written comments and also offer for the record our recent report, *A Double Success: Tackling Global Warming While Growing the Economy with an Improved Regional Greenhouse Gas Initiative;* which makes the case for strengthening RGGI.

There is strong support here in Delaware and across the region for adjusting the RGGI cap to reflect current emission levels and to ensure that it leads to significant reductions in carbon pollution. This is due to a growing recognition of the urgent need to act on climate and the importance of Delaware leading that effort. There is also a clear understanding that shifting the region to clean energy and away from a reliance on imported fossil fuels is good for the economy. As a result, tens of thousands of citizens and hundreds of stakeholders, including businesses, environmental, public health and civic organizations and local officials weighed in with Northeast state officials in support of improvements to this critical program.

Changes in our Climate Are Already Affecting the Region

The climate of the Northeast has already changed in startling ways, with serious impacts. For example:

- On average, the Northeast was nearly 2° F warmer in 2011 than it was in the late 19th century.[1]
- Sea level has risen by approximately a foot over the past century in the Northeast, a rate of rise higher than the global average.[2]
- Extreme precipitation events – those with the most intense rainfall and snowfall – are occurring more frequently. In New England, intense rain and snow storms occurred 85 percent more often in 2011 than they did in 1948, while in the mid-Atlantic region, the most intense storms occurred 55 percent more frequently.[3]
- Every Delaware county has been hit by at least two federally declared weather-related disasters since 2007, home to more than 900,000 residents.[4]
- Countless changes have occurred in natural communities throughout the region. Migratory birds have begun to arrive sooner and bird species have extended their ranges northward.[5] Snow depths in parts of New England have been decreasing, and lakes are experiencing “ice-out” earlier in the spring.[6]

In particular, Hurricane Irene in 2011 and Hurricane Sandy in 2012 demonstrated that the Northeast has much to lose from global warming. Hurricane Irene was responsible for 45 deaths and more than $6.5 billion in damage, while Hurricane Sandy was directly responsible for 72 deaths in the Northeast and Mid-Atlantic.[7] The storm caused $65 billion in damage in the U.S. and other affected countries.[8]

Should current emission trends continue, scientists anticipate that the Northeast will be vulnerable to more extreme storms, rising seas, higher temperatures and other threats from global warming. Climate science tells us that the impacts of global warming are likely to become more severe over time – especially if the region and the world continue to release carbon dioxide and other global warming pollutants in line with current trends.

The Northeast can, and must, make a meaningful contribution to reducing the impacts of global warming by significantly reducing its emissions of carbon pollution. In 2010, the 10 Northeastern states then participating in RGGI emitted 533 million metric tons (MMT) of carbon dioxide pollution from energy use.[9] Were the Northeast its own country, its emissions would rank 10th in the world, ahead of the United Kingdom, Saudi Arabia, Mexico, Brazil and France.[10] Our leadership can make a non-trivial impact on emissions; while showing the nation and the world that policies to reduce carbon pollution are both feasible and desirable.

RGGI Can Limit the Economic Risks Associated with Climate Change and Reduce Our Region's Dependence on Fossil Fuels

Global warming threatens public welfare and the Northeast's economy. More than $2 trillion of private property and public infrastructure could be exposed to damage in the Baltimore, Boston, New York-Newark, Philadelphia and Providence areas in the event of a 0.65 meter (2.1 foot) increase in sea level by 2050.[11]

At the same time, the Northeast spent nearly $130 billion in 2010 on fossil fuels, 98.5 percent of which were imported from outside the region.[12] RGGI helps reduce the region's dependence on fossil fuels by driving investments in energy efficiency measures and homegrown renewable energy sources that keep money and jobs in the Northeast.

The good news is that tackling carbon emissions is consistent with a growing economy. Between 2000 and 2010, the economies of the RGGI states grew twice as fast per capita as non-RGGI states while cutting carbon dioxide pollution 25 percent faster per capita.[13]

RGGI has Already Yielded Significant Environmental and Economic Benefits for Our State and the Region

RGGI, has already shown that a program that caps pollution and sells pollution permits can work. Of equal importance, as the first program to auction emission allowances, it has shown that investing auction revenues in measures that help reduce pollution can yield tremendous benefits.

Clean energy investments driven by RGGI through 2011 are expected to reduce global warming pollution by 12 million tons over their lifetimes, the equivalent of taking 2 million cars off the road for a year.[14] It has also helped reduce other air pollutants that harm our health.

These clean energy investments have also yielded an economic boost of $1.6 billion to the area, and the creation 16,000 jobs during its first years; while providing over $1 billion in energy bill savings; including $63 million in economic benefits and 530 jobs in Delaware.[15]

An Improved RGGI Will Yield Even Greater Benefits.

The success of the program to date should give us the confidence that the proposed improvements will provide further environmental and economic benefits.

Reducing RGGI's cap will lock in significant reductions in GHG pollution and ensure that power sector emissions continue to decline. Strengthening RGGI would avoid 86 to 91 million tons of

carbon dioxide pollution (78 million to 83 million metric tons) between 2013 and 2020 according to an analysis conducted by RGGI, Inc.[16] That is the equivalent annual emissions from 16 million cars. Re-investment of RGGI allowance auction revenues in programs to reduce direct consumption of fossil fuels would lead to further emission reductions.

A stronger RGGI will also provide continuing economic benefits. The proposed cap could provide states $3.8 billion in revenue through 2020, which would increase economic output by $8.2 billion and create 123,000 job years of employment.[17]

Conclusion:

By helping to move the region, the nation and the world on tackling climate-altering carbon pollution and helping us shift to clean energy and away from dependence on fossil fuels, strengthening RGGI is a win-win for Delaware and our Northeast neighbors. We strongly urge you to adopt these proposed improvements to RGGI as expeditiously as possible.

Notes

[1] Kenneth E. Kunkel, et al., National Oceanic and Atmospheric Administration, *Regional Climate Trends and Scenarios for the U.S. National Climate Assessment, Part 1: Climate of the Northeast U.S.*, January 2013. Based on 0.16° F per decade increase in temperatures from 1895 to 2011.

[2] John Boon, "Evidence of Sea Level Acceleration at U.S. and Canadian Tide Stations, Atlantic Coast, North America," *Journal of Coastal Research,* 28 (6): 1437-1445.

[3] Travis Madsen, Frontier Group, and Nathan Willcox, Environment America Research & Policy Center, *When it Rains it Pours: Global Warming and the Increase in Extreme Precipitation from 1948-2011*, Summer 2012.

[4] Tony Dutzik, Elizabeth Ridlington and Tom Van Heeke, Frontier Group; and Nathan Willcox, Environment America Research & Policy Center, *In the Path of the Storm: Global Warming, Extreme Weather and the Impacts of Weather-Related Disasters in the United States from 2007 to 2012*, April 2013.

[5] Lindsay Rustas, et al., U.S. Forest Service, *Changing Climate Changing Forests: The Impacts of Climate Change on Forests of the Northeastern United States and Eastern Canada,* 2012.

[6] Snow depths: U.S. Global Change Research Program, *Global Climate Change Impacts in the United States: Northeast*, 2009. Ice out: see examples in Lawrence C. Hamilton, Barry D. Keim and Cameron P. Wake, "Is New Hampshire's Climate Warming?" *Carsey Institute New England Policy Brief,* Summer 2010; Alan K. Betts, Vermont Agency of Natural Resources, *Climate Change in Vermont*, June 2011.

[7] New York Governor's Office, *Governor Cuomo Holds Meeting with New York's Congressional Delegation, Mayor Bloomberg and Regional County Executives to Review Damage Assessment for the State in the Wake of Hurricane Sandy* (press release), 26 November 2012.

[8] AON Benfield, *Annual Global Climate and Catastrophe Report, Impact Forecasting-2012*, downloaded from thoughtleadership.aonbenfield.com/Documents/20130124_if_annual_global_climate_catastrophe_report.pdf, 11 March 2013.

[9] International emissions of carbon dioxide from U.S. Department of Energy, Energy Information Administration, *International Energy Statistics Database: Total Carbon Dioxide Emissions from the Consumption Energy,* downloaded from www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm#, 19 February 2013; State carbon dioxide emissions from U.S. Department of Energy, Energy Information Administration, *State CO_2 Emissions,* 31 January 2013.

[10] Ibid.

[11] Tim Lenton, Anthony Footitt and Andrew Dlogolecki, WWF-World Wide Fund for Nature and Allianz, *Major Tipping Points in the Earth's Climate System and Consequences for the Insurance Sector,* November 2009.

[12] Based on net consumption (fossil fuel consumption in Btu minus fossil fuel production in Btu) from U.S. Department of Energy, Energy Information Administration, *State Energy Data 2010,* 29 June 2012.

[13] RGGI states reduced emissions per unit of gross state product 47 percent faster than non-RGGI states. Based on state-by-state data on carbon dioxide emission trends from US department of Energy, Energy information Administration, *State CO_2 Emissions,* 31 January 2013; *Gross Domestic Product by State* from U.S. Bureau of Economic Analysis, *Regional Data: GDP & Personal Income*, accessed at www.bea.gov/iTable/iTable.cfm?ReqID=70&step=1&isuri=1&acrdn=1#reqid=70&step=1&isuri=1, 31 January 2013; and population figures from U.S. Census Bureau, *The 2012 Statistical Abstract,* 2012.

[14] Regional Greenhouse Gas Initiative Inc., *Regional Investment of RGGI CO2 Allowance Proceeds, 2011,* November 2012.

[15] Paul J. Hibbard, et al., Analysis Group, *The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States,* 15 November 2011.

[16] Converted from 78 to 83 million metric tons. RGGI Inc., *RGGI IPM Analysis: Amended Model Rule,* 8 February 2013.

[17] NESCAUM, 2013, *REMI Economic Impact Analysis Assumptions and Results: 91 Cap Bank Potential Scenario*, available at: http://rggi.org/docs/ProgramReview/February11/13_02_11_REMI.pdf